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10/699,288

10/31/2003

James W. Schmitkons

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03/10/2005

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EXAMINER

SMITH, JOHNNIE L

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,288

Applicant(s)

SCHMITKONS ET AL.

Examiner

Johnnie L. Smith II

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by US patent 6,457,846 (Cook et al). Cook teaches a method of converting a lamp assembly between a focused pattern of radiation emission onto a curing area and a flood pattern of radiation emission onto the curing area, the lamp assembly having a radiation source (18) and first and second movable reflective bodies (6) partially surrounding the radiation source (fig 1), the method comprising moving the first and second movable reflective bodies in respective paths of movement relative to the radiation source to define a focus position of the reflective bodies (fig 1A), emitting a first amount of radiation from the radiation source, reflecting the first amount of radiation off the reflective bodies and toward the curing area in the focused pattern (fig 1A-B), moving the first and second reflective bodies relative to the radiation source to positions defining a flood position of the reflective bodies (fig 2A-B), emitting a second amount of radiation from the radiation source, and

reflecting the second amount of radiation off the reflective bodies toward the curing area in the flood pattern (fig 2B).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,457,846 (Cook et al). In reference to claims 1 and 8, Cook discloses a lamp assembly for irradiating a substrate, having a radiation source (18), a reflector having first and second movable reflective bodies (6) each having a concave reflective surface (12), said first and second reflective bodies cooperating to

partially surround said radiation source and being movable to define an emission opening positioned there between to emit radiation from said radiation source toward the substrate (figs 1A-B, 2A-B). Cook discloses all elements of the claimed invention but fail to clearly show an actuator or a first and second movable stop members positioned to respectively engage said first and second reflective bodies during movement thereof, each stop member being movable to selectively enable radiation from said radiation source to be emitted through said emission opening selectively either in a focused pattern or a flood pattern. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such limitations since Cook teaches a movable shuttering system (column 4 line 65-column 5 line 51, figs 1-3) capable of selectively enabling radiation from said radiation source to be emitted through said emission opening for the purpose of having a selectively focused pattern or flood pattern.

6. In reference to claims 2 and 3, as discussed above Cook discloses all elements of the claimed invention but fail to clearly show the lamp assembly further having third and fourth stop members positioned to either reduce or enlarge said emission opening, and wherein said first, second, third and fourth stop members comprise pins, said first and second pins having smaller diameters than said third and fourth pin. It would have been obvious to one of ordinary skill in the

art at the time of the invention to have such limitations since Cook teaches a shuttering system (column 4 line 65- column 5 line 51, figs 1-4) positioned to either reduce or enlarge said emission opening for the purpose of varying the amount of radiation that reaches the substrate.

7. In reference to claim 4, cook teaches a lamp assembly wherein said first and second reflective bodies (6) are mounted on opposite sides of said radiation source and further comprising a third reflective body (4) mounted above said radiation source (fig 1).

8. In reference to claims 5 and 6, as discussed above Cook discloses all elements of the claimed invention but fail to clearly show a lamp assembly wherein said first and second reflective bodies move in respective paths of movement and said first and second movable stop members are removable from the respective paths of movement to enable a different amount of movement of said first and second reflective bodies and wherein said first and second movable stop members are fixable at different locations along the respective paths of movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such limitations since Cook teaches a shuttering system (column 4 line 65- column 5 line 51, column 6 lines 30-37, figs 1-4) wherein said first and second

reflective bodies move in respective paths of movement for the purpose of varying the amount of radiation that reaches the substrate.

9. In reference to claim 7, Cook shows a lamp assembly wherein said radiation source comprises an elongate ultraviolet light-emitting bulb (figs).

10. In reference to claims 9 and 13, Cook teaches a method of converting a lamp assembly between a focused pattern of radiation emission onto a curing area and a flood pattern of radiation emission onto the curing area, the lamp assembly comprising a radiation source and first and second movable reflective bodies partially surrounding the radiation source, the method having steps of moving the first and second movable reflective bodies in respective paths of movement relative to the radiation source to define a focus position of the reflective bodies, emitting a first amount of radiation from the radiation source, reflecting the first amount of radiation off the reflective bodies and toward the curing area in the focused pattern, moving the first and second reflective bodies relative to the radiation source defining a flood position of the reflective bodies, emitting a second amount of radiation from the radiation source, and reflecting the second amount of radiation off the reflective bodies and toward the curing area in the flood pattern (column 4 line 65-column 5 line 51, figs 1-4). Cook discloses all elements of the claimed invention but fail to clearly show a first and second stop members and the step of

moving the first and second stop members out of the paths of movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such limitations since Cook teaches a movable shuttering system (column 4 line 65- column 5 line 51, figs 1-4) for selectively enabling radiation from said radiation source to be emitted through said emission opening selectively either in a focused pattern or a flood pattern for the purpose of varying the amount of radiation that reaches the substrate.

11. In reference to claims 10-12 and 14-16, Cook teaches Cook discloses all elements of the claimed invention but fail to clearly show third and fourth stop members wherein moving the first and second stop members further comprises removing the first and second stop members, and stopping the first and second reflective bodies against the respective third and fourth stop members at the flood position; moving the first and second reflective bodies closer together or moving the first and second reflective bodies farther apart. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such limitations since Cook teaches a movable shuttering system (column 4 line 65- column 5 line 51, figs 1-4) to selectively enable radiation from said radiation source to be emitted through said emission opening selectively either in a focused pattern or a flood

pattern for the purpose of varying the amount of radiation that reaches the substrate.

Response to Arguments

12. Applicant's arguments filed 12/20/05 have been fully considered but they are not persuasive. Applicant argues that Cook et al does not teach having focus position of a lamp wherein the reflective bodies of the lamp are spaced farther apart than in a flood position, and that Cook discloses a rectangular cross sectional configuration that is not capable of functioning in a focused condition. In figures 3A-C Cook shows the shuttering system wherein the system is adjusted to three different positions. The first being more of a compact position whereas the third having a greater width than that first and second. The examiner notes that beam direction of the first position differs from that of the third in that the third position has more of a focused beam array. Therefore the examiner feels that the disclosure of Cook meets the limitation being claimed since it is depicted in the figures, listed above, that Cook's apparatus is capable of selectively emitting radiation in either flood (3A) or focused (3C) position. The examiner also feels that figures 3A and 3B show a relatively elliptical reflective body. Applicant further argues that the rejections of claims 1 and 9 lack prima facie obviousness since as noted above applicant believes that Cook failed to disclose an apparatus adjustable between

flood and focused patterns. Applicant further argues that the rejection lack motivation to include stop members. The examiner contends that Cook teaches a shuttering system wherein said first and second reflective bodies move in respective paths of movement for the purpose of varying the amount of radiation that reaches the substrate as discussed above. Cook teachings of such a system, as discussed above, do not require a secondary reference with regards to the applicant's included stop members because Cook's reflective shutters are capable of performing equivalent functions.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

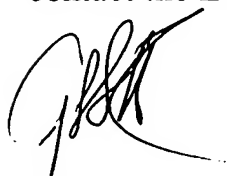
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L. Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JLSII

Johnnie L Smith II
Examiner
Art Unit 2881



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